attained owing to that instead of the ore addition being as under:
4-21 0x3-60 (from formula 73) = 15-49 1-03 SIX4-32 („ „ 67)= 4M5 0-14 PX4-30 („ „ G9)= (HJO 1-82 Mnx 0-97 („ „ 71)=_±l(i_
_^M_per cent. Fo.2O3
or=22'5 per cent, ore containing 99 per cent. FegOg which was theoretically required, it had in reality amounted to 23 '11 per cent., and this would indicate under the check of the condition that final slag with not over 10 per cent. Fe only was possible hy this means, that always sufficient oxygen from ore was at the disposal of the charge; the refinement could, therefore, proceed with full energy, whereby it permitted the oxidising action of the furnace gases to be lowered further than was assumed in the previous calculation. For comparison with the later examples, let two more data be ascertained, namely the quantities of oxygen rendered useful per minute, and the quantum of steel produced in the same time. There has been rendered useful in the combustion of the reducing agents 7'48 per cent, of oxygen (on the charge weight), or 26,200 x 0-0748=1,959 kilogrammes in 260 minutes, or
' ' = about 7*8 kilogrammes 0 per minute.
From the 26,200 kilogrammes pig iron, 26,200x1*0744 = 28,149 kilogrammes steel was produced in 260 minutes, which
28 149 is equivalent to ' -= about 108 kilogrammes steel per minute.
Dr. Ing. Th. Naske gives in "'Stahl und Eisen," 1907, from the great abundance of material which he has accumulated with untiring industry, further very interesting examples of which some are set out below. In these the different conditions were purposely varied in order to be able to establish the influence of the individual factors on the course of the process.
The first example (" Stahl und Eisen," 1907, p. 281, Table (>) indicates similar conditions to Charge No. 8996, previously